

CLAIMS

We claim:

1 1. A wireless telecommunications unit comprising:
2 a wireless telecommunications means for wireless telecommunication
3 with the outside, possessing an identification number for wireless
4 telecommunications;

5 a memory means; and

6 a microcontroller to control said wireless telecommunications means
7 and said memory means, said microcontroller comprising:

8 a means for performing a control for an external unit to implement
9 wireless telecommunications with the outside by said wireless
10 telecommunications means when said microcontroller is connected to said
11 external unit;

12 a means for performing a control for said external unit to use said
13 memory means as a file system of a specified operating system when said
14 microcontroller is connected to said external unit; and

15 a means for performing a control for said wireless
16 telecommunications means to carry out telecommunications using said
17 memory means in accordance with instructions from said external unit or
18 said microcontroller.

1 2. The wireless telecommunications unit of Claim 1, further
2 comprising a housing within which is installed said wireless
3 telecommunications means, said memory means and said microcontroller,
4 wherein said housing is freely attachable and detachable with respect
5 to the external unit, and configured such that said external unit can be
6 connected to said microcontroller by installment in the external unit.

1 3. The wireless telecommunications unit of Claim 1, wherein said
2 microcontroller is provided with a control means for calling by using address
3 data recorded in said memory means.

1 4. The wireless telecommunications unit of Claim 1, wherein said
2 microcontroller is provided with a control means for said wireless
3 telecommunications means to carry out calling by using address data
4 recorded in said memory means based on instruction from said external unit,
5 when connected to said external unit.

1 5. The wireless telecommunications unit of Claim 1, wherein said
2 microcontroller is provided with a control means for storing received data of
3 said wireless telecommunications means in said memory means.

1 6. The wireless telecommunications unit of Claim 1, wherein said
2 microcontroller is provided with a control means for transmitting data
3 recorded by said wireless telecommunications means in said memory means.

1 7. The wireless telecommunications unit of Claim 1, wherein the
2 interface with said external unit in said microcontroller is of the PC Card
3 Standard type or the Compact Flash type.

1 8. The wireless telecommunications unit of Claim 1, such that, when
2 connected to said external unit, said microcontroller and said wireless
3 telecommunications means operate as standard modems with an external
4 interface of the PC Card Standard type or the Compact Flash type.

1 9. The wireless telecommunications unit of Claim 1, such that, when
2 connected to said external unit, said microcontroller and said wireless
3 telecommunications means operate as ATA Flash Disks with an external
4 interface of the PC Card Standard type or the Compact Flash type.

1 10. The wireless telecommunications unit of Claim 1, such that, when
2 connected to said external unit, said microcontroller, said wireless

3 telecommunications means, and said memory means operate as multi-
4 function PC Cards or Compact Flash Cards having a function of standard
5 modem or ATA Flash Disk.

1 11. The wireless telecommunications unit of Claim 9, wherein said
2 microcontroller is provided also with writing/reading means for writing data
3 to or reading data from said memory means that function as an ATA Flash
4 Disk according to commands from said wireless telecommunications means
5 functioning as a standard modem.

1 12. The wireless telecommunications unit of Claim 10, wherein said
2 commands from said wireless telecommunications means are expanded AT
3 commands.

1 13. The wireless telecommunications unit of Claim 1, wherein said
2 wireless telecommunications means and said memory means are able to
3 operate in a plurality of operating modes, and said wireless
4 telecommunications unit further comprises a switching means for switching
5 the operating mode of said wireless telecommunications means and said
6 memory means.

1 14. The wireless telecommunications unit of Claim 1, further
2 comprising an identification number memory means for recording said
3 identification numbers, said identification number memory means being able
4 to attached to or detached from the wireless telecommunications unit

1 15. The wireless telecommunications unit of Claim 14, wherein said
2 identification number memory means is a memory card for recording said
3 identification numbers.

1 16. The wireless telecommunications unit of Claim 1, wherein said
2 microcontroller has an audio data interface that exchanges audio data with
3 said external unit.

1 17. The wireless telecommunications unit of Claim 1, wherein said
2 microcontroller has a character and pattern data interface that exchanges
3 character and pattern data with said external unit.

1 18. The wireless telecommunications unit of Claim 1, characterized in
2 being provided also with a battery that supplies power to said wireless
3 telecommunications means and said memory means.

1 19. The wireless telecommunications unit of Claim 1, wherein said
2 memory means records programs corresponding to at least one external unit,
3 and said microcontroller reads said programs corresponding to this external
4 unit from said memory means and supplies them to said external unit, when
5 connected to the external unit.

1 20. The wireless telecommunications unit of Claim 19, characterized in
2 being provided also with an external unit identification means for identifying
3 connected external units, when an external unit is connected, said external
4 unit identification means identifies the connected external unit, and said
5 microcontroller supplies said program corresponding to this identified
6 external unit to said external unit.

1 21. The wireless telecommunications unit of Claim 1, wherein said
2 microcontroller is provided with a processing means for executing data
3 processing using data recorded in said memory means, and a delegation
4 request means that requests at least a partial delegation of said data
5 processing to said specified operating system of said external unit connected
6 to said microcontroller.

1 22. The wireless telecommunications unit of Claim 21, wherein said
2 delegation request means requests at least a partial delegation of said data
3 processing to said specified operating system of said external unit, only in

4 cases where the data processing capacity of said external unit connected to
5 said microcontroller is greater than a specified data processing capacity.

1 23. The wireless telecommunications unit of Claim 21, wherein said
2 delegation request means requests at least a partial delegation of said data
3 processing to said specified operating system of said external unit, only in
4 cases where the present data processing capacity of said external unit
5 connected to said microcontroller is greater than a specified data processing
6 capacity.

1 24. The wireless telecommunications unit of Claim 21, wherein said
2 delegation request means requests at least a partial delegation of said data
3 processing to said specified operating system of said external unit, only in
4 cases where the data processing to be executed by said data processing
5 means is the specified data processing.

1 25. The wireless telecommunications unit of Claim 21, wherein said
2 delegation request means requests at least a partial delegation of said data
3 processing to said specified operating system of said external unit, according
4 to instructions contained in data used in data processing executed by said
5 processing means.

1 26. The wireless telecommunications unit of Claim 21, wherein said
2 delegation request means requests at least a partial delegation of said data
3 processing to said specified operating system of said external unit, only in
4 cases where the present data processing capacity of said processing means is
5 lower than a specified data processing capacity.

1 27. The wireless telecommunications unit of Claim 21, wherein said
2 delegation request means requests the delegation of processing in which all
3 the data used is recorded in an area that can be accessed from said specified
4 operating system, being processing that is at least a portion of said data

5 processing, to said specified operating system of said external unit connected
6 via said microcontroller.

1 28. The wireless telecommunications unit of Claim 21, wherein said
2 delegation request means determines the distribution ratio of processing
3 based on the data processing capacity of said processing means and the load
4 of data processing to be executed by said processing means, and requests the
5 delegation of a load according to the distribution ratio in said data
6 processing, to said specified operating system of said external unit connected
7 via said microcontroller.

1 29. The wireless telecommunications unit of Claim 21, wherein said
2 delegation request means determines the distribution ratio of processing
3 based on the data processing capacity of said processing means and the data
4 processing means of said external unit connected via said microcontroller,
5 and requests the delegation of a load according to the distribution ratio in
6 said data processing, to said specified operating system of said external unit.

1 30. The wireless telecommunications unit of Claim 1, wherein said
2 microcontroller is provided with a received data replay control means that
3 controls the reception operation and the replay operation according to the
4 type of received data and the connection status of said external unit, when
5 data is received.

1 31. The wireless telecommunications unit of Claim 30, wherein said
2 received data replay control means writes the received data to said memory
3 means when data is received and in cases where an external unit with
4 received data replay functions is not connected to said microcontroller.

1 32. The wireless telecommunications unit of Claim 30, wherein said
2 microcontroller is provided with a conversion means for converting received
3 data to data of another format

1 33. The wireless telecommunications unit of Claim 32, wherein said
2 received data replay control means converts received data to alternative data
3 in a format that is replayable by said external unit using said conversion
4 means, when data has been received, and writing said alternative data
5 instead of said received data to said memory means, in cases where an
6 external unit connected to said microcontroller cannot replay the received
7 data, and said conversion means can convert said received data to a format
8 that is replayable by said external unit.

1 34. The wireless telecommunications unit of Claim 32, wherein said
2 received data replay control means converts said data to alternative data in a
3 format that is replayable by said external unit using said conversion means,
4 and writing said alternative data instead of said received data to said
5 memory means, in cases where said external unit connected to said
6 microcontroller cannot replay the received data and said conversion means
7 can convert said data to a format that is replayable by said external unit,
8 when replay of data in said memory means is directed.

1 35. The wireless telecommunications unit of Claim 32, wherein there is
2 provided a conversion announcement means that announces that conversion
3 has been performed by said conversion means.

1 36. The wireless telecommunications unit of Claim 32, wherein said
2 received data replay control means sends to the telecommunications network
3 a channel support request signal requesting support for the wireless
4 telecommunications channel by the wireless telecommunications means for
5 a specified period of time, in cases where an external unit possessing
6 functions to replay received data is not connected to said microcontroller,
7 and in the meantime, in cases where an external unit possessing functions to
8 replay received data is connected to said microcontroller, said received data

9 replay control means carries out automatic reception, and receives said data
10 from said telecommunications network by said wireless telecommunications
11 means, and supplies it to said external unit.

1 37. The wireless telecommunications unit of Claim 32, wherein there is
2 provided an announcement means for announcing the receipt of data, in
3 cases where an external unit with the received data replay function is not
4 connected to said microcontroller, when data is received.

1 38. The wireless telecommunications unit of Claim 32, wherein said
2 received data replay control means writes at least one of the following to a
3 memory means: the transmission source of the received data, time of receipt,
4 and the type of data, when an external unit with the received data replay
5 function is not connected to said microcontroller, when data is received.

1 39. The wireless telecommunications unit of Claim 1, provided with a
2 short distance wireless telecommunications means for carrying out wireless
3 telecommunications with another wireless telecommunications unit, and said
4 microcontroller is provided with a relay control means for controlling the
5 relay of data telecommunications between another wireless
6 telecommunications unit and a remote station on the wide-area wireless
7 telecommunications, using said wireless telecommunications means and said
8 short distance wireless telecommunications means

1 40. The wireless telecommunications unit of Claim 39, wherein said
2 relay control means broadcasts data relating to the telecommunications
3 resources provided by said wireless telecommunications means, using said
4 short distance wireless telecommunications means.

1 41. The wireless telecommunications unit of Claim 39, provided with a
2 short distance wireless telecommunications unit having said short distance
3 wireless telecommunications means and a wide-area telecommunications

unit having said wireless telecommunications means, and provided with at least a wide-area telecommunications unit, if not also a short distance wireless telecommunications unit, the wide-area telecommunications unit and the short distance wireless telecommunications unit being attached to or detached from the housing of the wireless telecommunications unit.

42. The wireless telecommunications unit of Claim 1, wherein said memory means possesses a general-use memory unit capable of reading or writing by said external unit, using an ordinary file access method, and a write-only area that can be written from said external unit side, using an ordinary file access method, and a registration area containing registered data that is the basis for user authentication and which is inaccessible from said external unit, and

said microcontroller is provided with an authentication control means so that when a user's input data is written to said write-only area from said external control unit, said input data and said registered data undergo authentication processing to determine whether or not they satisfy the predetermined relationship, said authentication control means allowing the access to said general-use memory unit from said external unit only in cases where they are determined to satisfy the predetermined relationship..

43. The wireless telecommunications unit of Claim 42, provided with an installation detection means for detecting the installation of said housing in said external unit, wherein said authentication control means carries out authentication processing when the installation of said housing in said external unit is detected by said installation detection means and the user input data is written from the said external unit side to said write-only area

44. The wireless telecommunications unit of Claim 42, provided with a log in detection means for detecting user log in to said external unit, wherein

3 said authentication control means carries out authentication processing when
4 user log in to said external unit is detected by said log in detection means
5 and the user input data is written from the said external unit side to said
6 write-only area.

1 45. The wireless telecommunications unit of Claim 42, characterized in
2 that said authentication control means permits writing to said write-only area
3 under a designated number of times, and permits access to said general-use
4 memory unit from said external unit only in cases where the results of said
5 authentication processing for writing under the designated number of times
6 indicates that the said predetermined relationship is satisfied.

1 46. The wireless telecommunications unit of Claim 45, wherein said
2 authentication control means, moreover, prevents writing from said external
3 unit to said write-only area, in cases where the results of said authentication
4 processing for writing under the designated number of times indicates that
5 said predetermined relationship is not at all satisfied.

1 47. The wireless telecommunications unit of Claim 42, wherein said
2 input data is data representing the password input by the user, and said
3 registered data is data representing the correct password, and said
4 predetermined relationship is a matching relationship.

1 48. The wireless telecommunications unit of Claim 43, wherein said
2 authentication control means permits writing only from said external unit to
3 said write-only area when said housing is detached from said external unit.

1 49. The wireless telecommunications unit of Claim 44, wherein said
2 authentication control means permits writing only to said write-only area
3 from said external unit when the user logs out with respect to said external
4 unit.

1 50. The wireless telecommunications unit of Claim 43, wherein said
2 authentication control means, moreover, outputs to said external unit a
3 dummy signal representing change in the attachment/detachment status of
4 said housing with respect to the external unit, after said authentication
5 processing.

1 51. The wireless telecommunications unit of Claim 43, wherein said
2 authentication control means, moreover, permits writing only to said write-
3 only area from said external unit, when it receives specific instructions from
4 said external unit side, and the attachment of said housing to said external
5 unit is detected by said attachment detection means.

1 52. The wireless telecommunications unit of Claim 44, wherein said
2 authentication control means, moreover, permits writing only to said write-
3 only area from said external unit side, when it receives specific instructions
4 from said external unit side, and user log in to said external unit is detected
5 by said log in detection means.

1 53. The wireless telecommunications unit of Claim 42, wherein said
2 authentication control means, moreover, returns data that expresses the
3 status of the device, when it receives a request to read out said write-only
4 area from said external unit, using an ordinary file access method.

1 54. The wireless telecommunications unit of Claim 2, wherein the
2 housing is provided with a holder held by the user, and said wireless
3 telecommunications unit further comprises:

4 a biodata detection means that detects biodata of the user when the user
5 holds said holder, and

6 an authentication means that authenticates whether or not the user is a
7 particular person, based on the biodata detected using said biodata detection
8 device.

1 55. The wireless telecommunications unit of Claim 54, characterized in
2 that when said housing is connected to the external unit, said wireless
3 telecommunications unit is put in either the operation permission status or
4 the operation prohibition status with respect to the external unit based on the
5 authentication result of the authentication means.

1 56. The wireless telecommunications unit of Claim 54, wherein said
2 biometric data detection means is provided in said holder, and detects a user's
3 fingerprints when the user holds said holder.

1 57. The wireless telecommunications unit of Claim 54, characterized in
2 that within a predetermined time after authentication is completed by said
3 authentication means, the authentication results are output.

1 58. The wireless telecommunications unit of Claim 1, wherein said
2 memory means possesses a memory area for recording the identification
3 numbers of servers connected to one or more telecommunications networks
4 not including the Internet, and

5 said microcontroller comprises:

6 a channel connection means for establishing a channel connecting said
7 server and said wireless telecommunications unit via one or more
8 telecommunications networks not including the Internet, in accordance with
9 said wireless telecommunications means, using said identification number
10 and

11 a control means for transmitting data that requires confidentiality using
12 said channel.

1 59. The wireless telecommunications unit of Claim 58, wherein said
2 data that requires confidentiality uses a session key.

1 60. A wireless telecommunications method, said method characterized
2 in when data is received, and an external unit capable of replaying the

3 received data is not connected, a wireless telecommunications unit transmits
4 a channel support request signal that requests that a wireless
5 telecommunications channel be supported for a specified time period to the
6 telecommunications network, and

7 after the channel support request signal is received from said wireless
8 telecommunications unit, channel control, which supports said wireless
9 telecommunications channel, is executed for a specified period of time, and
10 said wireless telecommunications unit carries out automatic reception for the
11 specified period of time, in cases where an external unit is connected that
12 has the function of replaying said received data, and said received data is
13 received from said telecommunications network and supplied to said
14 external unit.

1 61. A wireless telecommunications method in a wireless
2 telecommunications system provided with a plurality of wireless
3 telecommunications terminals, said plurality of wireless telecommunications
4 terminals being provided with a short distance wireless telecommunications
5 means to carry out short distance telecommunications with each of the other
6 wireless telecommunications terminals, and at least some of the wireless
7 telecommunications terminals in said plurality of wireless
8 telecommunications terminals are provided with said short distance wireless
9 telecommunications means, as well as a wide area wireless
10 telecommunications means for carrying out telecommunications with a
11 remote station via a wide area telecommunications network that includes the
12 wireless territory,

13 said method characterized in that the wireless telecommunications
14 terminal provided with both said short distance wireless telecommunications

16 relay intercommunication with another wireless telecommunications
17 terminal and a remote station connected to said wide area
18 telecommunications network.

1 62. The wireless telecommunications method of Claim 61, wherein a
2 plurality of wireless telecommunications terminals provided with said wide-
3 area telecommunications means carries out relay intercommunication with
4 another wireless telecommunications terminal and a remote station
5 connected to said wide area telecommunications network of another wireless
6 telecommunications terminal.

1 63. A wireless telecommunications method in a wireless
2 telecommunications system provided with a plurality of wireless
3 telecommunications terminals, said plurality of telecommunications
4 terminals being provided with a short distance wireless telecommunications
5 means to carry out short distance wireless telecommunications with each of
6 the other wireless telecommunications terminals, and at least some of the
7 wireless telecommunications terminals in said plurality wireless
8 telecommunications terminals are provided with said short distance wireless
9 telecommunications means, as well as a wide area wireless
10 telecommunications means for carrying out telecommunications with a
11 remote station via a wide area telecommunications network that includes the
12 wireless territory,

13 said method characterized in that the wireless telecommunications
14 terminals provided with both said short distance wireless
15 telecommunications means and said wide area wireless telecommunications
16 means communicates with a remote station connected said wide area
17 telecommunications network using said wide area wireless
18 telecommunications means and request a portion of the relay of said

19 telecommunications with respect to other wireless terminals provided with
20 both said short distance wireless telecommunications means and said wide
21 area telecommunications means using said short distance wireless
22 telecommunications means, along with telecommunications with said remote
23 stations connected to said wide area telecommunications network, using said
24 wide area telecommunications means, and the other wireless
25 telecommunications terminal that is the destination of this request carries out
26 a portion of the relay of telecommunications with the wireless
27 telecommunications terminal that is the source, and said remote station,
28 using the short distance wireless telecommunications means and the wide
29 area telecommunications means.

1 64. A wireless telecommunications method in a wireless
2 telecommunications system provided with a plurality of wireless
3 telecommunications terminals, said plurality of telecommunications
4 terminals being provided with a short distance wireless telecommunications
5 means to carry out short distance wireless telecommunications with each of
6 the other wireless telecommunications terminals, and at least some of the
7 wireless telecommunications terminals in said plurality wireless
8 telecommunications terminals are provided with said short distance wireless
9 telecommunications means, as well as a wide area wireless
10 telecommunications means for carrying out telecommunications with a
11 remote station via a wide area telecommunications network that includes the
12 wireless territory,

13 said method characterized in that a wireless telecommunications
14 terminal provided with both said short distance wireless telecommunications
15 means and said wide area wireless telecommunications means requests
16 telecommunications with a remote station connected to said wide area

17 telecommunications network, with respect to another wireless
18 telecommunications terminal provided with both said short distance wireless
19 telecommunications means and said wide area wireless telecommunications
20 means, by using said short distance wireless telecommunications means, and
21 this other wireless telecommunications terminal which is the destination of
22 the request, carries out telecommunications with said remote station by using
23 the wide area wireless telecommunications means.

1 65. A wireless telecommunications method in a wireless
2 telecommunications system provided with a plurality of wireless
3 telecommunications terminals, said plurality of telecommunications
4 terminals being provided with a short distance wireless telecommunications
5 means to carry out short distance wireless telecommunications with each of
6 the other wireless telecommunications terminals, and at least some of the
7 wireless telecommunications terminals in said plurality wireless
8 telecommunications terminals are provided with said short distance wireless
9 telecommunications means, as well as a wide area wireless
10 telecommunications means for carrying out telecommunications with a
11 remote station via a wide area telecommunications network that includes the
12 wireless territory,

13 said method characterized in that a wireless telecommunications
14 terminal provided with both said short distance wireless telecommunications
15 means and said wide area wireless telecommunications means requests relay
16 with a remote station connected to said wide area telecommunications
17 network, with respect to another wireless telecommunications terminal
18 provided with both said short distance wireless telecommunications means
19 and said wide area wireless telecommunications means, by using said short
20 distance wireless telecommunications means, and this other wireless

21 telecommunications terminal which is the destination of the request, carries
22 out intercommunication with said wireless telecommunications terminal
23 which is the source of the request and said remote station, by using the wide
24 area wireless telecommunications means and the short distance wireless
25 telecommunications means.

1 66. A telecommunications method characterized in being provided
2 with a process whereby a telecommunications terminal carries out the
3 communication of data that requires secrecy, between servers via one or
4 more telecommunications networks that do not include the Internet, using a
5 first telecommunications means, and
6 a process whereby said telecommunications terminal carries out the
7 communication of data that does not require secrecy, between servers via
8 one or more telecommunications networks that do not include the Internet,
9 using a second telecommunications means separate from the first
10 telecommunications means.

1 67. A telecommunications method characterized in being provided
2 with a process whereby a telecommunications terminal carries out the
3 exchange of session keys between servers via one or more
4 telecommunications networks that do not include the Internet, using a first
5 telecommunications means, and

6 a process whereby said telecommunications terminal carries out the
7 communication of data that is enciphered with said session key between
8 servers via one or more telecommunications networks that do not include the
9 Internet, using a second telecommunications means separate from the first
10 telecommunications means.

1 68. A telecommunications method characterized in being provided
2 with:

3 a process whereby a telecommunications terminal receives the
4 purchase tag designated for the purchased product between electronic
5 shopping servers via one or more telecommunications networks that do not
6 include the Internet, using a first telecommunications means

7 a process whereby said telecommunications terminal carries out the
8 communication of said purchase tag and personal information that requires
9 secrecy between electronic shopping servers via one or more
10 telecommunications networks that do not include the Internet, using a first
11 telecommunications means or using a second telecommunications means
12 separate from the first telecommunications means, and

13 a process whereby said electronic shopping server carries out billing
14 using said purchase tag and personal information.

1 69. A telecommunications method characterized in being provided
2 with:

3 a process whereby a telecommunications terminal carries out the
4 exchange of session keys between electronic shopping servers via one or
5 more telecommunications networks that do not include the Internet, using a
6 first telecommunications means

7 a process whereby said telecommunications terminal carries out the

exchange of session keys between said terminal and said session key between

16 telecommunications networks that do not include the Internet, using a first
17 telecommunications means and

18 a process whereby said electronic shopping server carries out billing
19 using said purchase tag and personal information.

1 70. A telecommunications system characterized in being provided
2 with a telecommunications terminal and a server,

3 said telecommunications terminal provided with a first and second
4 terminal side telecommunications means,

5 said server provided with a first and second server side
6 telecommunications means, and

7 a first terminal side telecommunications means of said
8 telecommunications terminal and a first server side telecommunications
9 means of said server carry out the communication of data that require
10 secrecy, via one or more telecommunications networks that do not include
11 the Internet, and

12 a second terminal side telecommunications means of said
13 telecommunications terminal and a second server side telecommunications
14 means of said server carries out the communication of data that does not
15 require secrecy via one or more telecommunications networks include the
16 Internet.

1 71. A telecommunications system characterized in being provided
2 with a telecommunications terminal and a server,

3 said telecommunications terminal provided with a first and second
4 terminal side telecommunications means,

5 said server provided with a first and second server side
6 telecommunications means, and

7 a first terminal side telecommunications means of said
8 telecommunications terminal and a first server side telecommunications
9 means of said server carry out the exchange of keys via one or more
10 telecommunications networks that do not include the Internet, and

11 a second terminal side telecommunications means of said
12 telecommunications terminal and a second server side telecommunications
13 means of said server carries out the communication of data that is
14 enciphered by said session key via one or more telecommunications
15 networks that include the Internet.

1 72. A battery unit characterized in being provided with a battery that
2 provides power to a wireless telecommunications unit,

3 and a power source housing unit containing said battery and capable
4 of being attached to said wireless telecommunications unit and to said
5 external unit,

6 said power source housing unit being constructed such that when
7 mounted in both said wireless telecommunications unit and said external
8 unit, said wireless telecommunications unit and said external unit are
9 connected.

1 73. A battery unit characterized in being provided with
2 a battery that supplies power to a wireless telecommunications unit,
3 a power source housing unit containing said battery and capable of
4 being mounted to said wireless telecommunications unit, said power source
5 unit capable of being attached to an external unit, and

6 a PC card-type microcontroller for data exchange between said
7 external power source unit,

8 wherein in cases where said external unit and said wireless
9 telecommunications unit are attached, said microcontroller executes the

10 control of said wireless telecommunications unit for said external unit so that
11 said wireless telecommunications unit operates as a multifunction PC card or
12 a PC card with specified operating mode.

1 74. A card adapter-type battery unit characterized in being provided
2 with:

3 an adapter main body fixed with a card-type module, said adapter unit
4 capable of being inserted into the card slot of an external unit together with
5 said card-type module;

6 a battery contained within said adapter main body; and

7 a card power supply means for supplying power from said battery to
8 said card-type module.

1 75. The card adapter-type battery unit of Claim 74, provided with:

2 a switch mounted in said adapter main body;

3 an external unit power supply means for supplying power to said
4 external unit from said battery; and

5 a battery control means for selecting whether or not power is supplied to
6 said external unit from said external unit power supply means in response to
7 said switch operating state.

1 76. The card adapter-type battery unit of Claim 74, wherein the battery
2 is a charge-type battery.

1 77. The card adapter-type battery unit of Claim 74, provided with a
2 switch mounted in said adapter main body, a charging means for charging
3 said battery from said external unit, and characterized in that said battery
4 control means selects whether or not power is supplied to said external unit
5 from said external unit power supply means in response to said switch
6 operating state.

1 78. The card adapter-type battery unit of Claim 74, provided with a
2 switch mounted in said adapter main body,
3 a charging means for charging said battery from said external unit, and
4 an external unit power for supplying power to said external unit from
5 said battery,
6 characterized in that said battery control means selects either
7 (1) the charging mode that permits the operation of the charging means, and
8 that prohibits the operation of the external unit power supply means;
9 (2) the external unit power supply mode that prohibits the operation of the
10 charging mode, and permits the operation of the external unit power
11 supply means; or
12 (3) the external unit connection prohibition mode that prohibits the operation
13 of the charging means, and prohibits the operation of the external unit
14 power supply means,
15 in response to said switch operating state.

1 79. The card adapter-type battery unit of Claim 74, wherein said card-
2 type module and card adapter-type battery main body has the overall
3 configuration of a PC card when said card-type module is fixed to said
4 battery main body.

1 80. The card adapter-type battery unit of Claim 74, wherein said adapter
2 main body is provided with an indicator for displaying the voltage level of
3 said battery.

1 81. The card adapter-type battery unit of Claim 74, wherein said card-
2 type module is a Compact Flash (registered trademark of Sun Disk
3 Corporation), Smart Media (registered trademark of Toshiba Corporation),
4 Memory Stick (registered trademark of Sony Corporation), Multi Media
5 Card (registered trademark of Siemens A.G.), or a small PC card.

1 82. A charging device characterized in being provided with
2 a battery charging means for the battery unit; and
3 a housing for containing said charging device,
4 wherein when said housing contains both said battery unit and an
5 external unit, a pathway is formed for transmitting data between said battery
6 unit and said external unit.

11/03/2003 14:00:00